



# Computer Science Newsletter

Indiana University South Bend

[www.cs.iusb.edu](http://www.cs.iusb.edu)

November 2004

## Fall 2004 - Spring 2005

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### State of the Department:

The Department has been working hard to implement our new bachelor of science program in Informatics. Informatics is a new interdisciplinary initiative at Indiana University, and IUSB is the third IU campus which has begun its implementation. The Informatics program has brought over \$700,000 in new state funding to IUSB. This funding will allow the campus to hire five new faculty members in the core and cognate areas of Informatics. In addition the funding is being used to develop two state of the art Informatics laboratories in the coming years. Dr. Schwartz, our interim director, reports that the interest in this program continues to grow. We look forward to working with various academic disciplines to implement a successful program.

The department is pleased to introduce two new colleagues. Ms. Dengfeng Gao was hired as an Assistant Professor of Computer Science. Her area of expertise is in Database Management Systems. Dr. Robert Batzinger was hired as the Laboratory Manager for the new Informatics Lab (NS 160). Both Ms. Gao and Dr. Batzinger have many diverse interests and expertise in computing. Please stop by their new offices in the first floor of North Side Hall (NS 160 across from the bookstore.) and introduce yourselves. The computer science faculty welcomes Dengfeng and Robert to IUSB and to the Department of Computer and Information Sciences. (*..Continued on Page 3*)

### Graduate Program:

The M.S. in Applied Mathematics and Computer Science has been quite successful. To date we have approximately 55 graduate

students enrolled in the program and last summer our first graduate from this program received her degree. Yujing Feng completed her M.S. thesis under the direction of Dr. Dana Vrajitoru. You may view her thesis at [www.cs.iusb.edu/graduate\\_thesis.html](http://www.cs.iusb.edu/graduate_thesis.html). A number of other students are at various stages of completing their course work and conducting their research.

### Graduate Course Offering:

In addition to some 400-level courses which may be counted toward the graduate program, during spring and summer 2005 the department will be offering the following graduate courses:

#### Spring 2005:

- A593 Computer Structures
- A594 Data Structures
- B503 Algorithms Design and Analysis
- B561 Advanced Database Concepts
- B581 Advanced Computer Graphics
- B657 Computer Vision
- Y790 Graduate Independent Study (1-6 credits)

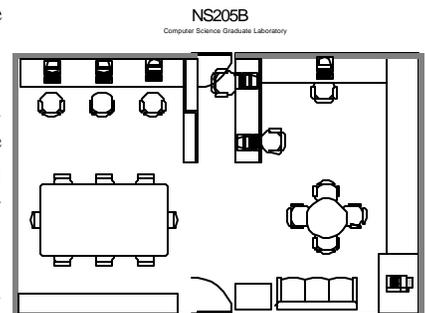
#### Summer 2005:

- B553 Biomorphing Computing
- Y790 Graduate Independent Study (1-6 credits)

The Department of Mathematical Sciences is also offering a similar number of graduate courses.

### New Graduate Laboratory:

Our new graduate laboratory is nearly ready for use. This new lab is for the exclusive use of graduate students in our programs. The space is primarily designed as a graduate study and research laboratory. Although some of the computers in this lab will run the standard software and will have access to our existing network, others may be used as stand-alone computers for research and experimentation.



In addition to the basic computing facilities, the new lab will include a library, accommodate group meetings, and contain white

boards for large scale design diagrams and presentation facilities.

## Graduate Teaching Assistantship:

For the past two years, the department of computer and information sciences has been offering opportunities for graduate teaching assistants in computer science. Applications for teaching assistantships can be obtained from the department web site at [www.cs.iusb.edu/employment.html](http://www.cs.iusb.edu/employment.html)

## New Informatics Classroom:

Our Informatics director, the IUSB construction crew, the OIT staff and numerous other vendors have been working hard to prepare the new Informatics classroom/laboratory as well as the new research laboratory. The new classroom is designed to accommodate up to 28 students and is equipped with state of the art computer and audio visual technology. The department will begin offering classes in this room starting Spring 2005.

## Student Chapter of the ACM:

The computer science faculty encourage all computer science and informatics students to join the Student Chapter of the ACM. The ACM (Association of Computing Machinery) is the premier computing organization in the United States. Membership in the Student Chapter is free and has many benefits, including social events (pizza parties), lectures, tutorials and camaraderie with other CS students. Membership and participation in the ACM can be a plus when you go for that first job interview as well. You can obtain more information about the ACM and its activities from their web site at [www.iusb.edu/~acm](http://www.iusb.edu/~acm) or email the officers at [acm@iusb.edu](mailto:acm@iusb.edu).

## Spring Course Offering:

The department has scheduled the following courses as upper level electives. Please consult the CS booklet or your advisor to make sure you have the proper prerequisites.

Spring 2005 Offering
C435 Operating Systems, <i>taught by Dr. Wolfer</i>
C455 Analysis of Algorithms, <i>taught by Dr. Vrajitoru</i>
C481 Interactive Computer Graphics, <i>taught by Dr. Vrajitoru</i>
C490 Computer Vision, <i>taught by Dr. Scheesele</i>

## Summer Course Offering: (NEW)

For the first time in many years the department will be offering a number of courses during the summer. If you are interested in summer offering, you should speak to your advisor and register for these courses ASAP. See below for details.

### Summer 2005 Offering

A201 Introduction to Programming (Visual Basic .Net)
C101 Computer Programming I (C++)
C151 Multiuser Operating Systems
C490 Biomorphic Computing
B553 Biomorphic Computing
Y398 Internship
Y790 Graduate Thesis

## Fall Course Offering:

C442 Database Systems will now be offered every year. Although, this course is not part of the core requirements for computer science, students are encouraged to take this course before graduating from our program.

### Fall 2005 Offering

C442 Database Systems
B438 Computer Networks
C490 Game Programming Design

## 2004 Excellence Award Winner:

Each year the computer science faculty has the pleasure of selecting the excellence award winners in our undergraduate program. Academic achievement is the primary, but not the only criterion for selection.

The computer science faculty congratulates our 2004 Excellence Award Winner.

**David E. Meeks**

## The John P. Russo Scholarship:

Last year, the department established a scholarship in Dr. John P. Russo's name. Numerous, students, alumni, friends and family members have contributed and continue to contribute to this scholarship fund. As a result, this year, the department is happy to announce our first John P. Russo scholarship recipient.

The computer science faculty congratulates our 2004 'John P. Russo Scholarship' winner.

**Haroun Rababaah**

The purpose of this scholarship is to provide current undergraduate and graduate students majoring in Computer and Information Sciences at IU South Bend with financial assistance in completing their degrees. The basis for the scholarship is demonstrated potential for academic excellence in Computer and Information Sciences. The Scholarship will be awarded annually

through the Computer Science Scholarship Committee. You can find additional information about this scholarship online at [www.cs.iusb.edu/scholarship/jprusso.pdf](http://www.cs.iusb.edu/scholarship/jprusso.pdf).

## Opportunity for CS Majors:

The Department of Mathematical Sciences has revised its A.A. and Minor requirements to make it easier for CS majors to earn a minor or an A.A. in Mathematics. The new A.A. and Minor in mathematics will count M208, M209, M260, M261 and M301. By adding a couple of other math courses, many CS majors will qualify for an A.A. or a minor in Math. I encourage those of you who are interested in this opportunity to consult with Dr. Yu Song or Dr. Dean Alvis of the Department of Mathematical Sciences. Additional information may also be found at [www.iusb.edu/~sbmath/programs.shtml](http://www.iusb.edu/~sbmath/programs.shtml)

## State of the Department *continued...*

The computer science faculty remain active in their research, teaching and service to our university. Here are a few of the activities undertaken by our faculty. Dr. Wolfer obtained SBC Fellowship (\$14,728) to enhance our computing curriculum by introducing robotics in our Assembly Language Programming course. Dr. Scheessele tirelessly mentored the student chapter of the Association of Computing Machinery, which resulted in a number of high quality and well attended public presentations for our students. Dr. Vrajitoru masterfully coached our IUSB Computer Science Programming Team, preparing them for participation in the regional ACM Collegiate Programming Competition. IUSB's team ranked 20<sup>th</sup> out of 128 teams, competing with teams from top rated computer science programs such as University of Waterloo, Carnegie Mellon University, University of Michigan, Ohio State University and Pennsylvania State University. Dr. Surma was awarded a \$100,000 grant from National Science Foundation to support his research in Communication Reduction Techniques to Improve Throughput in High Performance Networks. Dr. Rus was selected as the Co-Chair of the Knowledge Engineering and Management Section at International Conference on Information and Knowledge Sharing. He also received an \$8,000 Faculty Fellowship Grant to conduct research on Logic Form Identification.

The department continues to be active in its outreach mission. Examples of such activity include faculty and student volunteering efforts to provide expertise to our local and regional non-profit organizations; increased interaction with local and regional educational institutions; internships and professional practice; increased course offerings for non-majors and community members; increased departmental sponsorship of public presentations; development of stronger relationships with our alumni; and the creation of endowments and scholarships in computer science. Last year, in order to commemorate Professor John P. Russo's contributions to our

department and our students at IUSB, the department established a scholarship for academic excellence in Professor Russo's name.

The *student chapter of the ACM* had a very productive year. Among their activities were a successful membership drive, fund raising, and sponsorship of five presentations. The department faculty applaud the members of the ACM chapter. More details about ACM activities can be found on their web site at [www.iusb.edu/~acm](http://www.iusb.edu/~acm) as well our departmental news web site at [www.cs.iusb.edu/news.html](http://www.cs.iusb.edu/news.html).

Some recent activities of the ACM:

- ' IUSBfest: "Beat the Geek" contest
- ' Lecture on Computer Graphics by outside speaker
- ' Movie night with SPS (Physics Club) and the Math Club
- ' Linux Installation Day
- ' Rube Goldberg Contest at Purdue University
- ' Co-sponsorship (with MADNUG) of a lecture on 'Extreme Programming'.
- ' Poker Night
- ' Co-Sponsorship with Information Systems Security Association (ISSA) a lecture on 'SPAM - What Can Be Done?'

## Advising:

Our department places a heavy emphasis on proper academic advising. To aid the process of advising, the department has prepared an *advising homepage*. Students should consult the advising homepage prior to making an appointment with their advisor. Consulting this web site provides you with a wealth of information and ensures that you have the proper documentation prior to meeting with your advisor. The advising homepage can be found at [www.cs.iusb.edu/advising.html](http://www.cs.iusb.edu/advising.html).

If you have questions or need to make an advising appointment please feel free to contact me, Dr. Knight or other computer science faculty.

Sincerely,



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You may obtain additional information about the computer science programs, courses, laboratories and faculty at [www.cs.iusb.edu](http://www.cs.iusb.edu) or by writing to us at

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## A Message from our College:

Continuing Student Registration for the Spring 2005 semester is just a couple of weeks away. You are urged to advance register for spring classes to maximize your chances of getting into the section of your choice. Below is some information about registration that you may find useful. More details can be found in the *Schedule of Classes*, on the Registrar Website (<http://www.iusb.edu/~regr>) and on the Liberal Arts and Sciences Website (<http://www.iusb.edu/~lasi>).

If you have already met with your advisor about the up-coming semester before receiving this letter, you do not need to meet with her/him again unless your plans have changed or you have additional questions.

### REGISTRATION

**Web Registration** is available to all continuing students. Your appointment time and the *Schedule of Classes* are also available in [OneStart](#).

**Continuing Student Registration (Web)**—November 1-5 (at your appointment time or after)

**Open Registration & Schedule Adjustment (Web)**—begins November 8 and ends January 9

**Final Registration**—January 5

### IMPORTANT DATES

**First Day of Class**—January 10

**Last Day to Withdraw**—March 28

### AUTHORIZATIONS

Authorizations are not required during registration for Astronomy, Chemistry, Computer Science, English, Geology, Mathematics, or Physics courses. However, if you enroll in one of these courses without having the appropriate score on a placement examination or the appropriate grade in a prerequisite course, then your registration for that course will be canceled

before the start of classes.

## Finish Your Degree Sooner:

Just in case you missed this issue on page 2, I like to reiterate it. The department has scheduled the following courses for the summer session.

## New Summer 2005 Course Offering

A201 Introduction to Programming (Visual Basic .Net)  
C101 Computer Programming I (C++) (12 week format)  
C151 Multiuser Operating Systems  
C490 Biomorphc Computing  
B553 Biomorphc Computing  
Y398 Internship  
Y790 Graduate Thesis

C101	Computer Programming I (C++), will be offered in a 12 week format)
C490/B553	Biomorphc Computing, will meet during the first summer session, projects will be due at the end of second session.
Y398	Internship, Consult Dr. Hakimzadeh for details
Y790	Graduate Thesis, Consult Dr. Kinyon or your Graduate Advisor for details.